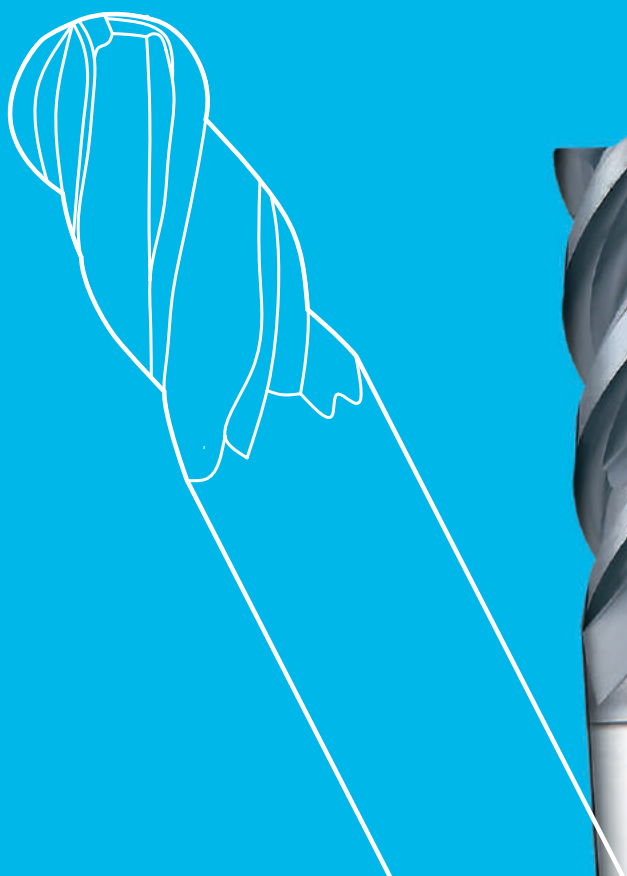




NEW

S-PRO SERIES

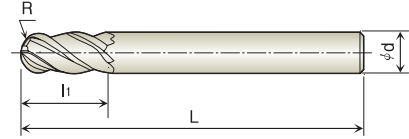


4날 SUS용 볼 엔드밀

4 FLUTES BALL END MILLS FOR STAINLESS STEELS, TITANIUM

- ◆ 채터링 방지 위한 형상 설계
- ◆ 독특한 플루이트 형상적용으로 칩배출 증대
- ◆ 4날 적용 및 깊은 칩배출공간으로 매끄러운 칩배출 및 면조도 우수
- ◆ 합금강, SUS계열, 티타늄, 인코넬 등 난삭재 가공 탁월함.
- ◆ Geometry design(Unequal Index) to protect the chattering.
- ◆ Unique flute design to improve chip flow.
- ◆ Excellent Surface roughness by 4 flutes, smooth chip flow with big chip pocket.
- ◆ Outstanding performance for Alloy steels, SUS, Titanium, Inconel and hard to cut materials.

SMG	TiAlN
4	R ±0.005
45°	HRC ~45
h6	DATA p.205



unit (mm)

신규 모델번호 Model No.	구 모델번호 Model No.	볼반경 Radius of Ball Nose R	날 장 Length of cut l ₁	샙크경 Shank Diameter d	전 장 Overall Length L
● 4SUB 030 080 660		R1.5	8	6	60
● 4SUB 040 080 670		R2.0	8	6	70
● 4SUB 050 120 680		R2.5	12	6	80
● 4SUB 060 120 690		R3.0	12	6	90
● 4SUB 080 160 8A0		R4.0	16	8	100
● 4SUB 100 200 AA0		R5.0	20	10	100
● 4SUB 120 250 CA0		R6.0	25	12	100
● 4SUB 160 300 GA0		R8.0	30	16	100
● 4SUB 200 380 KA0		R10.0	38	20	100

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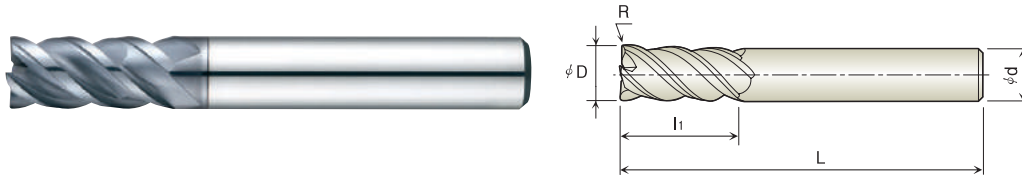
샙크경, 전장 표시법	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

사이즈 D Size	인선직경공차(mm) D Tolerance	볼반경(mm) R Size	R공차(mm) R Tolerance
3~5	0~-0.010	R1.5~R2.5	±0.010
6~12	0~-0.015	R3~R6	±0.010
16~20	0~-0.025	R8~R10	±0.015

4날 SUS용 코너 라디우스 엔드밀

4 FLUTES CORNER RADIUS END MILLS FOR STAINLESS STEELS, TITANIUM

- ◆ 채터링 방지 위한 형상 설계
- ◆ 독특한 플루이트 형상적용으로 칩배출 증대
- ◆ 날부 칩핑방지 위한 코너R 적용
- ◆ 합금강, SUS계열, 티타늄, 인코넬 등 난삭재 가공 탁월 함.
- ◆ Geometry design(Unequal Index) to protect the chattering.
- ◆ Unique flute design to improve chip flow.
- ◆ Excellent Surface roughness by 4 flutes, smooth chip flow with big chip pocket.
- ◆ Outstanding performance for Alloy steels, SUS, Titanium, Inconel and hard to cut materials.



unit (mm)

신규 모델번호	구 모델번호	인선 직경	코너 반경	날 장	생크 경	전 장
Model No.	Model No.	Outside Diameter	Corner Radius	Length of cut	Shank Diameter	Overall Length
		D	CR	l ₁	d	L
● 4SUR 010 R01 025 650		1	R0.1	2.5	6	50
● 4SUR 010 R02 025 650		1	R0.2	2.5	6	50
● 4SUR 012 R01 030 650		1.2	R0.1	3	6	50
● 4SUR 015 R01 040 650		1.5	R0.1	4	6	50
● 4SUR 015 R02 040 650		1.5	R0.2	4	6	50
● 4SUR 020 R01 060 650		2	R0.1	6	6	50
● 4SUR 020 R02 060 650		2	R0.2	6	6	50
● 4SUR 025 R02 070 650		2.5	R0.2	7	6	50
● 4SUR 030 R02 080 655		3	R0.2	8	6	55
● 4SUR 030 R03 080 655		3	R0.3	8	6	55
● 4SUR 030 R05 080 655		3	R0.5	8	6	55
● 4SUR 040 R02 100 655		4	R0.2	10	6	55
● 4SUR 040 R03 100 655		4	R0.3	10	6	55
● 4SUR 040 R05 100 655		4	R0.5	10	6	55
● 4SUR 050 R02 150 660		5	R0.2	15	6	60
● 4SUR 050 R03 150 660		5	R0.3	15	6	60
● 4SUR 050 R05 150 660		5	R0.5	15	6	60
● 4SUR 060 R02 150 660		6	R0.2	15	6	60
4SUR 060 R03 130 660	SAE4060R03	6	R0.3	13	6	60
● 4SUR 060 R03 150 660		6	R0.3	15	6	60
● 4SUR 060 R05 150 660		6	R0.5	15	6	60
4SUR 070 R03 160 865	SAE4070R03	7	R0.3	16	8	65
● 4SUR 080 R03 200 870		8	R0.3	20	8	70
● 4SUR 080 R05 200 870		8	R0.5	20	8	70
● 4SUR 080 R10 200 870		8	R1.0	20	8	70
4SUR 090 R03 190 A70	SAE4090R03	9	R0.3	19	10	70
4SUR 100 R03 220 A70	SAE4100R03	10	R0.3	22	10	70
● 4SUR 100 R03 250 A75		10	R0.3	25	10	75
● 4SUR 100 R05 250 A75		10	R0.5	25	10	75
● 4SUR 100 R10 250 A75		10	R1.0	25	10	75
● 4SUR 100 R15 250 A75		10	R1.5	25	10	75
● 4SUR 100 R20 250 A75		10	R2.0	25	10	75



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4날 SUS용 코너 래디우스 엔드밀

4 FLUTES CORNER RADIUS END MILLS FOR STAINLESS STEELS, TITANIUM



S-PRO

unit (mm)

신규 모델번호 Model No.	구 모델번호 Model No.	인선직경	코너반경	날 장	샙크경	전 장
		Outside Diameter	Corner Radius	Length of cut	Shank Diameter	Overall Length
		D	CR	l ₁	d	L
● 4SUR 100 R30 250 A75		10	R3.0	25	10	75
4SUR 120 R03 260 C80	SAE4120R03	12	R0.3	26	12	80
● 4SUR 120 R05 300 C80		12	R0.5	30	12	80
● 4SUR 120 R10 300 C80		12	R1.0	30	12	80
● 4SUR 120 R15 300 C80		12	R1.5	30	12	80
● 4SUR 120 R20 300 C80		12	R2.0	30	12	80
● 4SUR 120 R30 300 C80		12	R3.0	30	12	80
● 4SUR 120 R40 300 C80		12	R4.0	30	12	80
4SUR 140 R03 260 E90	SAE4140R03	14	R0.3	26	14	90
4SUR 160 R03 320 GA0	SAE4160R03	16	R0.3	32	16	100
4SUR 180 R03 320 IA0	SAE4180R03	18	R0.3	32	18	100
4SUR 200 R03 380 KA0	SAE4200R03	20	R0.3	38	20	100

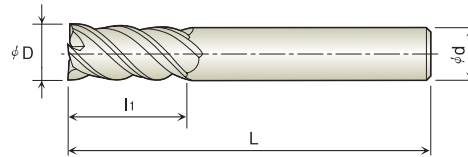
샙크경, 전장 표시법	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

사이즈 D Size	인선직경공차(mm) D Tolerance	코너R반경(mm) R Size	R공차(mm) R Tolerance
1~5	0~-0.010	R0.1~R0.5	±0.005
6~12	0~-0.015	R1~R1.5	±0.010
14~20	0~-0.025	R2~R3	±0.015

4날 SUS용 스퀘어(플랫) 엔드밀

4 FLUTES SQUARE (FLAT) END MILLS FOR STAINLESS STEELS, TITANIUM

- ◆ 채터링 방지 위한 형상 설계
- ◆ 독특한 플루이트 형상적용으로 칩배출 증대
- ◆ 합금강, SUS계열, 티타늄, 인코넬 등 난삭재 가공 탁월함.
- ◆ Geometry design (Unequal Index) to protect the chattering.
- ◆ Unique flute design to improve chip flow.
- ◆ Excellent Surface roughness by 4 flutes, smooth chip flow with big chip pocket.
Outstanding performance for Alloy steels, SUS, Titanium, Inconel and hard to cut materials.



SMG	TiAlN
4	0~-0.02
43°	HRC ~45
h6	DATA p.207

S-PRO

		unit (mm)			
신규 모델번호	구 모델번호	인선직경	날 장	생크경	전 장
Model No.	Model No.	Outside Diameter	Length of cut	Shank Diameter	Overall Length
		D	l ₁	d	L
● 4SUE 010 025 650		1	2.5	6	50
● 4SUE 012 030 650		1.2	3	6	50
● 4SUE 015 040 650		1.5	4	6	50
● 4SUE 020 060 650		2	6	6	50
● 4SUE 025 070 650		2.5	7	6	50
● 4SUE 030 080 655		3	8	6	55
● 4SUE 030 100 660		3	10	6	60
● 4SUE 035 100 655		3.5	10	6	55
● 4SUE 040 100 655		4	10	6	55
● 4SUE 040 120 660		4	12	6	60
● 4SUE 045 120 655		4.5	12	6	55
● 4SUE 050 150 655		5	15	6	55
● 4SUE 055 150 660		5.5	15	6	60
● 4SUE 060 130 660	SAE4060	6	13	6	60
● 4SUE 060 150 660		6	15	6	60
● 4SUE 060 200 665		6	20	6	65
● 4SUE 065 150 860		6.5	15	8	60
● 4SUE 070 160 865	SAE4070	7	16	8	65
● 4SUE 070 200 870		7	20	8	70
● 4SUE 080 160 865	SAE4080	8	16	8	65
● 4SUE 080 200 870		8	20	8	70
● 4SUE 080 250 870		8	25	8	70
● 4SUE 080 300 880		8	30	8	80
● 4SUE 085 200 A70		8.5	20	10	70
● 4SUE 090 190 A70	SAE4090	9	19	10	70
● 4SUE 090 250 A80		9	25	10	80
● 4SUE 100 220 A70	SAE4100	10	22	10	70
● 4SUE 100 250 A75		10	25	10	75
● 4SUE 100 350 A85		10	35	10	85
● 4SUE 120 260 C80	SAE4120	12	26	12	80
● 4SUE 120 300 C80		12	30	12	80
● 4SUE 120 400 C90		12	40	12	90

● : NEW

4날 SUS용 스퀘어 엔드밀

4 FLUTES SQUARE END MILLS FOR STAINLESS STEELS, TITANIUM

SMG	TiAlN
4	0~-0.02
43°	HRC ~45
h6	DATA p.207

S-PRO

unit (mm)

신규 모델 번호	구 모델 번호	인선직경	날 장	생크 경	전 장
Model No.	Model No.	Outside Diameter	Length of cut	Shank Diameter	Overall Length
		D	l ₁	d	L
4SUE 140 260 E90	SAE4140	14	26	14	90
4SUE 160 320 GA0	SAE4160	16	32	16	100
4SUE 180 320 IA0	SAE4180	18	32	18	100
4SUE 200 380 KA0	SAE4200	20	38	20	100

생크경, 전장 표시법	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

사이즈	인선직경공차(mm)
D Size	D Tolerance
1~5	0~-0.010
6~12	0~-0.015
14~20	0~-0.025